

# Stateline Wind Project: Stateline 3 Habitat Mitigation Plan

[MARCH 27, 2009]

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## I. Introduction

This plan describes methods and standards for preservation and enhancement of an area of land near Stateline 3 to mitigate for the impacts of the facility on wildlife habitat.<sup>1</sup> This plan addresses mitigation for both the permanent impacts of facility components and the temporal impacts of facility construction. The certificate holder shall protect and enhance the Stateline 3 mitigation area as described in this plan. This plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of those actions. This plan does not address additional mitigation that might be required under the Wildlife Monitoring and Mitigation Plan for the Stateline Wind Project. This plan has been developed in consultation with the Oregon Department of Fish and Wildlife (ODFW).

## II. Description of the Impacts Addressed by the Plan

The Stateline 3 footprint (area covered by permanent facility components) may occupy areas of Category 3 and 4 grassland-steppe vegetation, Category 3 Conservation Reserve Program (CRP) or revegetated grassland and Category 3 grassland-shrub-steppe vegetation.<sup>2</sup> Most of the footprint would occupy Category 6 habitat (dryland agriculture). In compliance with a site certificate condition, the certificate holder would avoid any permanent or temporary impact on Category 1 and Category 2 habitat.

In addition to the areas permanently affected by the Stateline 3 footprint, construction would temporarily affect areas of Category 3, 4, 5 and 6 habitats. Temporarily affected Category 3, 4 and 5 non-cropland habitats include CRP, grassland, grassland-shrub-steppe and shrub-steppe. After disturbance, the recovery of temporarily disturbed Category 3 and 4 grassland areas to a mature stage might take two to four years; recovery of mature native shrubs in the Category 3, 4 and 5 shrub-steppe vegetation might take ten to 30 years to reach the maximum height and vertical branching present before construction. During the period needed to achieve full recovery of these habitat subtypes, habitat quality is temporarily degraded until recovery is successful (temporal impact). The duration of this impact on wildlife is variable, depending on the wildlife species' needs.

## III. Calculation of the Size of the Mitigation Area

The Stateline 3 habitat mitigation area (HMA) must be large enough to achieve, within a reasonable time, the habitat mitigation goals and standards of ODFW's Fish and Wildlife Habitat Mitigation Policy described in OAR 635-415-0025. For Category 2 impacts, ODFW goals require mitigation to achieve both "no net loss" and a "net benefit" in habitat quantity or quality. The ODFW goals require mitigation to achieve "no net loss" of habitat in Categories 3 and 4 (acre-for-acre mitigation). For Category 5 impacts, mitigation is achieved by a "net benefit in

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<sup>1</sup> This plan for Stateline 3 is incorporated by reference in the site certificate for the Stateline Wind Project and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder. Habitat mitigation for Stateline 1&2 is addressed in the separate Stateline Wind Project Revegetation Plan.

<sup>2</sup> Habitat is designated according to the Oregon Department of Fish and Wildlife categories (OAR 635-415-0025).

## Stateline Wind Project: Stateline 3 Habitat Mitigation Plan

[MARCH 27, 2009]

1 habitat quantity or quality.” For Category 6, mitigation is achieved by actions that minimize  
2 direct habitat loss and avoid impacts to off-site habitat.

3 The actual Stateline 3 footprint and construction disturbance areas cannot be determined  
4 until the final design layout of the facility is known. Before beginning construction of the  
5 Stateline 3, the certificate holders must provide to the Oregon Department of Energy  
6 (Department) and ODFW a map showing the final design configuration of Stateline 3 and a table  
7 showing the acres of permanent impacts and construction area impacts on habitat (by category,  
8 habitat types and habitat subtypes). Before beginning construction, the certificate holder shall  
9 calculate the mitigation area requirement, as illustrated below, based on the final design  
10 configuration of Stateline 3 and subject to the approval of the Department.

11 For the footprint impacts, the HMA must include at least one acre for every acre of  
12 footprint impacts to Category 3 and Category 4 habitat (a 1:1 ratio) to achieve “no net loss.” No  
13 permanent impact to Category 5 habitat is anticipated.

14 To address the temporal loss of habitat quality during the recovery of Category 3 and  
15 Category 5 shrub-steppe (SS) and grassland shrub-steppe (GSS) habitat temporarily disturbed  
16 during construction of Stateline 3 (outside the footprint), the HMA must include ½ acre for every  
17 acre of shrub-steppe habitat affected (a 0.5:1 ratio). If the revegetation success criteria are not  
18 met in the affected areas of temporarily disturbed SS habitat, as determined under the  
19 *Revegetation Plan*, then the Council may require the certificate holder to provide additional  
20 mitigation.

21 Based on maximum habitat impact estimates, Stateline 3 would have the following  
22 footprint and temporal impacts:<sup>3</sup>

Habitat Category	Footprint Impact (acres)	Temporal Impact on SS and GSS Habitat (acres)
Category 3	8.91	3.97
Category 4	0	n/a
Category 5	0	0.86
Category 6	49.94	n/a
Total acres	58.85	3.46

23 To illustrate the calculation of the mitigation area requirement, the area of impact within  
24 each affected habitat category, and the corresponding mitigation area requirements, sample  
25 calculations are shown below, based on the maximum habitat impact estimates in the table  
26 above:

27 Category 3

28 Footprint impacts: 8.91 acres (1:1 ratio)

29 Temporal impacts SS and GSS: 3.97 acres

30 Mitigation area requirement: 8.91 acres + (3.97 acres x 0.5) = 10.9 acres

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<sup>3</sup> Maximum habitat impact estimates are the estimated maximum impacts of the new Stateline 3 components on high-value wildlife habitat as shown in Table 8 of the Proposed Order on the Amendment #4.

# Stateline Wind Project: Stateline 3 Habitat Mitigation Plan

[MARCH 27, 2009]

## Category 5

Temporal impacts to SS: 0.86 acres

Mitigation area requirement: 0.86 acres x 0.50 = 0.43 acres

## **Total mitigation area requirement (rounded to nearest whole acre): 11 acres**

Within four months after beginning construction, the certificate holder shall determine the final size and configuration of the HMA in consultation with ODFW and the affected landowner and subject to the approval of the Department. In the Request for Amendment #4, the applicants proposed to increase the size of the HMA to 50 acres on a voluntary basis, although the calculated mitigation requirement may be less. Within four months after beginning construction of Stateline 3, the certificate holder shall acquire the legal right to create, maintain and protect the HMA for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department.<sup>4</sup>

## **IV. Description of the Mitigation Area**

The ODFW standards require mitigation for Category 3 impacts to be “in proximity” to the Stateline 3, and the HMA must be located where habitat protection and enhancement are feasible consistent with this plan.<sup>5</sup> The applicant identified two 50-acre parcels in proximity to the Stateline 3. Each parcel contains sufficient areas of habitat in the quantity and quality necessary to meet the mitigation requirements discussed above. Both parcels are acceptable to ODFW for the purposes of the HMA. The parcels are described further in the Final Order on Amendment #4.

## **V. Habitat Enhancement Actions**

The certificate holder shall implement the habitat enhancement actions described in this plan. The objectives of the plan are to protect the habitat within the HMA for the life of the facility and to enhance the baseline condition of the habitat to meet the ODFW mitigation goals.

The certificate holder shall protect the habitat within the HMA for the life of the facility and shall implement the enhancement actions. The certificate holder shall, without unreasonable delay, begin the enhancement actions described in this section after the final configuration of Stateline 3 is known and the size and boundaries of the HMA have been determined and approved by the Department. The certificate holder shall begin the enhancement actions no later than the start of Stateline 3 operations. Specific enhancement actions are described below.

1. Modification of Livestock Grazing. The certificate holder shall restrict grazing within the HMA. Removing livestock from the mitigation area during most of the year will enable recovery of native bunchgrass and sagebrush in areas where past grazing has occurred, resulting in better vegetative structure and complexity for wildlife. Reduced

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<sup>4</sup> As used in this plan, “life of the facility” means continuously until the Stateline Wind Project facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

<sup>5</sup> OAR 635-415-0005 defines “in-proximity habitat mitigation” as follows: “habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, ‘in proximity to’ means within the same home range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development.”

## Stateline Wind Project: Stateline 3 Habitat Mitigation Plan

[MARCH 27, 2009]

- 1 livestock grazing may be used as a vegetation management tool, limited to the period  
2 from approximately November 15 through March 1, depending on annual  
3 precipitation, soil moisture and the level of stocking (livestock animals on site).
- 4 2. Weed Control and Area Seeding. The certificate holders shall implement a noxious  
5 weed control program. Under the weed control program, the certificate holder shall  
6 monitor the mitigation area to locate weed infestations. The certificate holder shall  
7 continue weed control monitoring, as needed, for the life of the facility. As needed,  
8 the certificate holder shall use appropriate methods to control weeds. Weed control on  
9 the mitigation site will reduce the spread of noxious weeds within the habitat  
10 mitigation area and on any nearby native grassland, CRP or cultivated agricultural  
11 land. Weed control will promote the growth of desirable native vegetation in areas  
12 where weeds are competing with desirable native forbs and grasses. Where  
13 substantial areas of soil (greater than 100 ft<sup>2</sup>) are left bare from weed control  
14 activities, the certificate holders shall hand-seed the area in the appropriate time of  
15 year with a mixture containing native grass and shrub seeds. The certificate holders  
16 may consider weeds to be successfully controlled when weed clusters have been  
17 eradicated or reduced to a non-competing level. Weeds may be controlled with  
18 herbicides (spot-spraying or area spaying as appropriate) or hand-pulling. The  
19 certificate holders shall notify the landowner of the specific chemicals to be used on  
20 the site and when spraying will occur.
- 21 3. Fire Control. The certificate holders shall implement a fire control plan for wildfire  
22 suppression within the HMA. The certificate holders shall provide a copy of the fire  
23 control plan to the Department before starting habitat enhancement actions. The  
24 certificate holder shall include in the plan appropriate fire prevention measures,  
25 methods to detect fires that occur and a protocol for fire response and suppression.  
26 The certificate holders shall maintain fire control for the life of the facility. If wildfire  
27 damages any part of the HMA during the life of the facility, the certificate holder  
28 shall assess the extent of the damage and implement appropriate actions to restore  
29 habitat quality in the damaged area.
- 30 4. Habitat Protection. For the life of the facility, the certificate holder shall restrict uses  
31 of the HMA that are inconsistent with achieving the habitat mitigation goals.

## 32 VI. Monitoring

### 33 1. Monitoring Procedures

34 The certificate holder shall hire a qualified investigator (an independent botanist, wildlife  
35 biologist or revegetation specialist) to conduct a comprehensive monitoring program for the  
36 Stateline 3 HMA. The purpose of monitoring is to evaluate the protection of habitat quality, the  
37 results of enhancement actions and the use of the area by avian and mammal species, especially  
38 during the wildlife breeding season. The investigator shall conduct HMA monitoring beginning  
39 in the first year after enhancement actions begin and continuing for the life of the facility. The  
40 investigator shall visit the site as necessary to carry out the following monitoring procedures:

- 41 1) Annually assess the general quality of vegetation cover (species, structural stage, etc).  
42 2) Annually assess progress toward meeting the success criteria described in Section  
43 VI.3 below.

## Stateline Wind Project: Stateline 3 Habitat Mitigation Plan

[MARCH 27, 2009]

- 1 3) Annually record environmental factors (such as precipitation at the time of surveys  
2 and precipitation levels for the year).
- 3 4) Annually record any wildfire that occurs within the HMA and any remedial actions  
4 taken to restore habitat quality in the damaged area.
- 5 5) Annually assess the success of the weed control (including area seeding) and erosion  
6 control programs and recommend remedial action, if needed.
- 7 6) Assess the recovery of native bunchgrass and forbs resulting from reduction of  
8 livestock grazing pressure by comparing the quality of bunchgrass cover at the time  
9 of each monitoring visit with the quality observed in previous monitoring visits and  
10 as observed when the HMA was first established (the anticipated baseline year is  
11 2009). The investigator shall establish photo plots of naturally recovering native  
12 bunchgrass and forbs during the first year following the beginning of enhancement  
13 actions. The investigator shall take comparison photos in the first year and every two  
14 years thereafter until desirable vegetation has achieved mature stature. The  
15 investigator shall determine the extent of successful recovery of native bunchgrass  
16 based on measurable indicators (such as signs of more abundant seed production) and  
17 shall report on the progress of recovery within in the monitoring plots.
- 18 7) Between April 21 and May 21 beginning in the first spring season after the beginning  
19 of construction of the Stateline 3, conduct an area search survey of avian species  
20 following appropriate biological protocols. An “area search” consists of recording all  
21 birds seen or heard in specific areas (for example, square or circular plots that are 5 to  
22 10 acres in size representative of the HMA habitat). Area searches will be conducted  
23 by experienced biologists during morning hours on days with low or no wind. The  
24 investigator shall determine the number searches and the number of search areas in  
25 consultation with ODFW. The investigator shall repeat the area search survey every  
26 five years during the life of the facility.
- 27 8) Beginning in the first year after the beginning of construction of Stateline 3 and  
28 repeating every five years during the life of the facility, the investigator shall record  
29 observations of special status plant and wildlife species (federal or State threatened or  
30 endangered species and State Sensitive species) in the HMA during appropriate  
31 seasons for detection of these species. Special status species include, but are not  
32 limited to, Washington ground squirrel, grasshopper sparrow and burrowing owl.

### 33 2. Reporting

34 The certificate holder shall report the investigator’s findings and recommendations  
35 regarding the monitoring of the mitigation area to the Department and to ODFW on an annual  
36 basis. The certificate holder shall describe all habitat mitigation actions carried out during the  
37 reporting year and all additional work performed based on recommendations of the qualified  
38 investigator. The report shall include an evaluation of mitigation success, based on the success  
39 criteria described below, and a description of the methods used to perform the evaluation. The  
40 report to the Department may be included as part of the annual report on the Stateline Wind  
41 Project.

## Stateline Wind Project: Stateline 3 Habitat Mitigation Plan

[MARCH 27, 2009]

### 3. Success Criteria

Mitigation of the permanent and temporal habitat impacts of Stateline 3 may be considered successful if the certificate holder protects and enhances sufficient habitat within the mitigation area to meet the ODFW goals described above in Section III. The certificate holders must protect the quantity and quality of habitat necessary to meet the goals within the HMA for the life of the facility. The mitigation goals are successfully achieved when the HMA contains, at a minimum, a sufficient quantity of habitat in each category to meet the mitigation area requirements calculated under Section III. The certificate holder may count habitat of higher quality (Category 1 and 2 native grassland) toward meeting the acreage requirements for lower quality habitat. The certificate holder shall determine the actual mitigation area requirements, subject to Department approval, before beginning construction of Stateline 3. If the land selected for the mitigation area does not already contain sufficient habitat in each category to meet these requirements, then the certificate holder must demonstrate improvement of habitat quality as necessary to meet the requirements.

The certificate holder may demonstrate enhancement of habitat quality based on indicators such as: (1) increased vegetative cover compared to the pre-enhancement grazing period, (2) increased avian use by a diversity of species typical for the habitat type and quality of the location (3) more abundant seed production of desirable native bunchgrass, (4) natural recruitment of native forbs and (5) successful noxious weed control.

If the certificate holder cannot demonstrate that the HMA is trending toward meeting the success criteria within three years after the date construction of Stateline 3 begins, the certificate holder shall propose remedial action. The Department may require supplemental native grass planting or other corrective measures, which may include increasing the size of the HMA.

### VII. Amendment of the Plan

This Stateline 3 Habitat Mitigation Plan may be amended from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council (“Council”). Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject or modify any amendment of this plan agreed to by the Department.